Wind energy potentials of western coast

4340. SHRI GOVINDRAO ADIK: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the total wind energy potential of western coast, State-wise;

(b) the details of investments made during the last ten years to harness the wind energy potentials State-wise;

(c) the details regarding wind energy generation as on the 31st March, 1997;

(d) the strategy worked out/investment proposed and potentials targeted to be tapped along the western coast during 1997-98 and the Ninth Five Year Plan period for Maharashtra in particular, both by public and private sectors;

(e) whether there is either no generation of power or under generation of power at many projects of western coast;

(f) if so, the project-wise details of under utilisation and the reasons therefor; and

(g) the details of corrective measures proposed?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (CAPT. JAI NARAIN PRASAD NISHAD): (a) According to present estimates, a wind energy potential of 3000 MW has been estimated for Gujarat, 200 MW for Karnataka, 173 MW for Kerala and 75 MW for Maharashtra, among the States on the western coast.

(b) Wind Power installations have been about mainly through private sector investments. The total private sector investment over the last decade is estimated to have been Rs. 3000 crores. This has resulted in the setting up of around 850 MW of commercial wind power capacity. The State-wise breakup is indicated in the enclosed Statement. *(See* below). Government support has been by way of wind resource assessment and a few demonstration projects undertaken by State agencies and Electricity Boards. The total expenditure by Government on such activities during the last 10 years has been about Rs. 75 crores.

(c) About 1.9 billion units of electircity have been fed to the State grids from wind power projects, as on 31st March, 1997.

(d) State-wise targets have not been fixed. The installation of wind power projects in each State will depend upon the identification of favourable sites, announcement of attrative policies by the State Government concerned and private investments actually made. A target of 2000 additional MW of wind power capacity has been proposed for the Ninth Plan. During 1997-98, a capacity of 175 MW is likely to be installed all over the country.

(e) to (g) Power generation from wind power projects on the western coast has by and large been satisfactory. The availability of the wind equipment has been very high. However, the quantum of generation in various projects has depended upon availability of suitable winds and a suitable grid at the project sites. The Ministry of Non-Conventional Energy Sources has issued guidelines to all concerned for detailed planning, selection of quality equipment, proper operation & maintenance of wind power projects, with a view to optimise generation.

Statement

Wind Power Programmes

Installed capacity (in MW) at a glance (As on 31.03.1997)

State	Demonstration Projects	Commercial Projects	Total
Tamil Nadu	19.355	655.520	674.875
Gujarat	17.345	129.465	146.810

State	Demonstration Projects	Commercial Projects	Total
Madhya Pradesh	3.050	51.240	54.290
Andhra Pradesh	0.590	9.000	9.590
Maharashtra	4.600	0.770	5.370
Karnataka	2.575	3.270	5.845
Kerala	2.025	—	2.025
Orissa	1.100	—	1.100
Others	0.465	—	0.465
TOTAL	51.105	849.265	900.370

Ocean thermal and sea wave power potentials

4341. SHRI PREM CHAND GUPTA: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) Is it a fact that the potential for Ocean Thermal and Sea Wave Power is over 70,000 MW?

(b) if so, what is the govt. doing to exploit this potential especially since are having over 3,000 km of coast line?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (CAPT. JAI NARAIN PRASAD NISHAD): (a) The estimated potential for Ocean Thermal & Sea Wave Power is of the order of 70,000 MW.

(b) The technology for harnessing Ocean Energy is still in the development stage all over the world. On a proposal from a U.S. Company for the installation of a 100 MW power plant based on Ocean Thermal Energy Conversion (OTEC) technology off the coast of Tamil Nadu on Build-Own-Operate (B-O-O) basis, an MOU was signed between Tamil Nadu electricity Board and Govt. of Tamil Nadu with the U.S. Company in 1994. The Tamil Nadu Govt. has recently cancelled the above MOU. However, the Ministry is examining the development of a smaller, shore-based, OTEC power plant.

An experimental 150 KW peak capacity oscilliating water column (OWC) Wave Power Plant has been set up in 1991 at Vizhinjam near Trivandrum on the Kerala coast by the Indian Institute of Technology, Madras under the aegis of the Department of Ocean Development. Another pilot project for harnessing a Wave Power Plant of 1 MW capacity using the principle of wave induced small hydro, is being examined for Andaman & Nicobar Islands.

Implementation of Roster System in Autonomous Bodies/Secretariats

4342. SHRI GHUFRAN AZAM: Will the PRIME MINISTER be pleased to state:

(a) the names of Autonomous Bodies/Secretariats in the Government of India as on 31.3.1997;

(b) whether Government are aware that the 40 Point Roster System has not been implemented in some of the Departments;

(c) the details of Secretariats which have been exempted from the Roster System and where uniform qualifying service has been prescribed for employees of all the categories in Departmental promotions on seniority basis;

(d) whether Government would ensure that the Roster System is implemented in Central Government Offices and in all the Autonomous Bodies/Secretariats;

(e) if so, the details thereof; and

(f) the details of the existing rules of Government to ensure effective implementation of the above Roster System?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL PUBLIC GRIEVANCES AND PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS. (SHRI S.R. BALASUBRAMONIYAN): (a) to (h) The Autonomous Bodies which are in